

2.0 LOCATION AND SITE HISTORY

The following sections describe the City of Moses Lake Maintenance Facility, surrounding area and the history of operations at the Site. Figure 1-1 shows the location of the Site. Figure 1-2 illustrates the Site's features. Figure 1-3 presents a schematic of the properties and land use in the vicinity of the Site, Figure 1-3a presents a schematic of Figure 1-3 overlaid on an aerial photograph to provide additional detail of the Site and surrounding area. Site photographs are provided in Appendix D.

2.1 Site Location

The Site is located within the City block north of Wheeler Road, south of Penn Street and east of Block Street (Figure 1-2) in Moses Lake, Grant County, Washington. The address for the facility is 819 East Penn Street. The Site is in the SW quarter of the SE quarter of Section 14, Township 19 North, Range 28 East, Willamette Meridian.

The legal descriptions for the Site are described as follows:

- **East Portion:** Lot 1 of Municipal Tract #2, Grant County Assessor's parcel number 11-0480-000.
- **Central Portion:** Tax #3678, Grant County Assessor's parcel number 11-0309-000.
- **West Portion:** Lot 5 Commercial Plat, Grant County Assessor's parcel number 09-1184-000 and Lot 6 Commercial Plat, Grant County Assessor's parcel number 09-1185-000.

Grant County Assessor's parcel number 11-0480-000 incorporates the established 4.7-acre Moses Lake Maintenance Facility. Grant County Assessor's parcel number 11-0309-000 includes a strip of land in the Central Portion of the site to the west of the established maintenance facility area. Grant County Assessor's parcel numbers 09-1184-000 and 09-1185-000 include the land east of Block Street. Figure 1-2 shows the approximate boundaries of the East, Central and West Portions of the Property.

2.2 Site Description

The entire Site is situated on a 7.2-acre rectangular city block, about 900 feet in an east-west direction by 350 feet in a north-south direction (Figure 1-2). A chain-link fence has been constructed around the perimeter of the Site.

The current established portion of the maintenance facility is on the eastern 4.7-acre portion of the property (580 feet in an east-west direction by 350 feet in a north-south direction). The established portion of the facility purchased in 2001 is separated from the property to the west by a chain-link fence that runs north-south. Buildings on the eastern 4.7-acre portion of the property (Figure 1-2) include:

- A maintenance shop on the east side of the property
- A Cascade Natural Gas building on the southeast corner of the property
- A parks department shop building to the south of the maintenance shop
- A secure chemical storage area to the south of the maintenance shop
- An office building and asphalt parking area on the north central portion of the property

In addition, there is a material stockpile area (including pieces of pipe, fencing, small storage sheds, sand and bricks) and a concrete wash area in the center of the facility, storage of tires, paint, toluene and oil drums along the fence line on the West Portion of the facility and a large gravel stockpile on the southwest portion of the facility (Figure 1-2). The ground surface east of the maintenance shop and the parking areas north and south of the office building are covered with asphalt. The remainder of the ground is bare sand and gravel.

The Site area west of the established maintenance facility was purchased by the City in 2001 and covers 2.5 acres (320 feet in an east-west direction by 350 feet in a north-south direction). All but the northeast and southwest corners of the area are surfaced with asphalt. Buildings on the West Portion of the property (Figure 1-2) include:

- Three warehouse buildings located on the southwest, northwest and south sides of the property.
- An office and shop building, previously occupied by Northwest Irrigation on the northeast side of the (West Portion) property.

2.3 Description of Adjacent Properties

A schematic showing the land use in the vicinity of the Site is presented in Figures 1-3 and 1-3a.

The Site is bounded on the north by Penn Street. The land immediately north of Penn Street and the existing maintenance facility is owned by the City of Moses Lake and had been filled for a distance of about 100 feet north of Penn Street to form a level gravel surfaced area now used for parking vehicles. The land north of the fill area is undeveloped. The land north of Penn Street and the West Portion of the Site comprises commercial and light industrial buildings including automobile repair and storage facilities.

The Site is bounded on the east by a gravel road running north-south between Wheeler Road and Penn Street. A loading bay and office is east of this gravel road.

The Site is bounded on the south by Wheeler Road, a busy road that connects the eastern side of the City to the downtown area. The East Columbia Basin Irrigation Project facility and the Samaritan Hospital are south of Wheeler Road and the existing maintenance facility. A strip mall including a Safeway store and parking lot is on the land to the southwest of the Site. Low-lying undeveloped wetlands are south of Wheeler Road between the hospital and the strip mall. Additional wetlands are north of the parking area on Penn Street.

The west of the Site is bounded by Block Street. Commercial and light industrial buildings including automobile repair and storage facilities are on the west side of Block Street.

2.4 Site History

The City of Moses Lake has owned and operated the established maintenance facility on the eastern 4.7-acre portion of the Site since the 1950s. Current activities at the maintenance facility include:

- Repair of vehicles and equipment within the maintenance shop building;
- Washing of vehicles and equipment in the wash bay on the south side of the maintenance shop building and in the sweeper pit in the Central Portion of the facility;

- Gravel storage;
- Storage of pesticides and herbicides for roadway maintenance; and,
- Small quantity storage of materials (pieces of pipe, fencing, small storage sheds, sand, bricks, tires, paints, solvents, lubricants, antifreeze, empty drums).

Gasoline and diesel fueling of vehicles occurred at the Site prior to 1992. In 1992, gasoline and diesel storage tanks were removed from the Site. Since 1992, all vehicles have been fueled off site.

Based on discussions with City personnel, prior to development of the maintenance facility, there was a shallow drainage channel that ran approximately north-south between the established maintenance facility property and the newly purchased property to the west. During development of the established maintenance facility, 55-gallon drums and other waste materials were removed from the old drainage channel prior to the channel being filled and graded. Impacted soils were not removed at this time. City personnel also indicated that waste oil was disposed at the Site in this vicinity. City personnel were not aware of the disposal of any other waste products, but could not rule out the possibility that other products associated with the maintenance shop, such as degreasing solvents, transmission fluid, mineral oils and gasoline, may have been disposed of in this area.

City personnel also indicated that an unlined sweeper pit was previously located in the vicinity of the existing concrete lined sweeper pit. The unlined pit was constructed of drain rock infilling an unlined excavation. Vehicles to be cleaned were driven on to the drain rock and washed. Wash water infiltrated into the drain rock and into the ground beneath the pit. This sweeper pit was replaced with the concrete lined sweeper pit in the mid 1990s.

One 500-gallon diesel underground storage tank (UST), one 1,000-gallon diesel UST, one 6000-gallon regular gasoline UST, one 8,000-gallon unleaded gasoline UST, one 500-gallon used oil UST and one unknown capacity (less than 6,000 gallons) regular gasoline UST were previously located at the maintenance facility. The approximate locations of these USTs are shown on Figure 2-1. A summary of the USTs is presented in Table 2-1. Between 1970 and 1992, all of the USTs were decommissioned and removed (see Section 2.5). Currently, only a 500-gallon waste oil above ground storage tank and several 55 gallon drums of motor oil are maintained on-site. The 500- gallon tank is approved by the manufacturer for waste oil. The Waste oil tank is located on a concrete dock in the shop and the 55-gallon drums are stored in the maintenance shop on a concrete surface.

According to City personnel, activities on the western 2.5-acre portion of the Site have included metal fabrication and welding and a short-term janitorial service.

The Site has poor drainage characteristics. Drainage was improved over the established maintenance facility area and over the portion of the property to the west by installation of perforated pipe bedded in drain rock. Although plans showing the location of the piping system were not available, the City believes that the drainage system over the established maintenance facility area flows into the storm drain that runs north on the west side of the Site (Figure 2-1). Based on communication between City personnel and the previous owner of the West Portion of the property, perforated pipe bedded in drain rock was also used to drain this part of the Site. This system drains into a catch basin with an open grill (Figure 2-1) that is believed to drain northward into the storm sewer. Figure 2-1 also provides the location of the Site underground utilities.

2.4.1 Prior Owners

The City of Moses Lake purchased the original property from Grant County in 1955. The City has owned and operated the maintenance facility on the eastern 4.7-acre portion of the Site since the 1950s. City records indicate that utilities were installed to the property in 1956 and the County issued the first building permit for the property in 1957. Although there are no direct records establishing it, it is accepted that the East and Central Portion of the subject property were undeveloped prior to 1956.

The western 2.5-acre portion of the Site was purchased by the City of Moses Lake from Busby International, Inc. (Busby) of Moses Lake in September 2001. According to the Grant County parcel database and communication with City personnel, Busby purchased Commercial Plat Lots 5 and 6 (Grant County Assessor's parcel numbers 09-1184-000 and 09-1185-000, respectively) from Mecco, Inc. in 1995. Mecco owned the property from about 1964 to 1995. Both Busby and Mecco were fabricating/welding companies. Busby continues to operate in the Moses Lake area. Mecco is no longer in business. According to City personnel, prior to 1964 the property was used by a company called Grant County Tractor as a tractor sales and repair facility. Busby also purchased Grant County Assessor's parcel number 11-0309-000 in the Central Portion of the property (the land between the municipal and commercial plats) in 1994. Prior to this the land was owned by Mr. Sid Eland. Based on communication with City personnel, Mr. Eland ran a metal fabrication business on the property.

2.5 **Previous Environmental Investigations**

The following paragraphs summarize the environmental investigations that are recorded for the established maintenance facility on the eastern 4.7-acre portion of the Site. Figure 2-2 presents the locations of the test pits and monitoring wells associated with these previous investigations. Table 2-1 presents a summary of the USTs that were previously located at the Site.

The regular gasoline UST of unknown capacity was removed at the maintenance facility in the early 1970s (Groundwater Technology, 1994). During removal of the tank, leaks were noted. Remedial action and cleanup is reported to have occurred but no written records have been found.

In 1986 petroleum impacted soils were noted during replacement of the 500-gallon diesel UST with the 1,000-gallon diesel UST (Century West Engineering Corporation, 1992). Remedial action is reported to have occurred but no written records have been found.

In 1990, the City collected a soil sample from a test pit dug in the vicinity of the former 500-gallon diesel UST. Analyses indicated TPH concentrations in the soil greater than the 200 part per million (ppm) 1990 MTCA Method A Cleanup Levels. In September 1990, the City notified Ecology of a petroleum hydrocarbon release at the Site.

In March 1992, the City contracted Century West Engineering Corporation (Century West) to complete a remedial investigation on the East Portion of the Site. The investigation involved digging eight test pits, (designated CW-TP-1 through -8) and installing four groundwater monitoring wells (designated MW-01, MW-02, MW-03 and MW-04). The location of the monitoring wells is presented on Figure 2-2. Construction details for the monitoring wells are summarized on Table 2-2. The soil samples collected during the investigation were analyzed for hydrocarbon identification (HCID) and total petroleum hydrocarbons (TPH). The groundwater samples were analyzed for benzene, toluene, ethyl benzene and xylenes (BTEX), hydrocarbon identification (HCID) and TPH. Soil samples collected from CW-TP-1 and CW-TP-2 (Figure 2-2) indicated TPH levels between 2,100 to 24,000 ppm at depths of 2 and 4 feet below ground surface (bgs). The source of the

petroleum hydrocarbons were reported as parked vehicles for the CW-TP-1 sample and the former 500-gallon diesel UST for the CW-TP-2 sample. HCID analyses indicated no detectable petroleum hydrocarbons were present in groundwater. Therefore, BTEX analysis was not conducted on the groundwater samples. The study recommended excavating the impacted soils and removing the soils to an off-site location for treatment or disposal.

In November 1992, the City contracted Royal Excavation, Inc. (REI) and Sage Earth Sciences, Inc. (Sage) to remove the 6,000-gallon regular gasoline UST, the 8,000-gallon unleaded gasoline UST, the 1,000-gallon diesel UST and the 500-gallon used oil UST (Sage, 1993). The approximate locations of these tanks are shown in Figures 2-1 and 2-2. About 425 cubic yards of gasoline impacted soils were removed from the excavations around the two gasoline tanks. In addition, aged petroleum, diesel and oil impacted soils were found in the diesel tank excavation and oil impacted soils were found in the waste oil tank excavation. Eight test pits were subsequently dug around the maintenance shop area (Figure 2-2). Soil and groundwater sampled from the test pits indicated aged gasoline and lead in the soil and groundwater extending northwest from the maintenance shop. A water sample collected from a storm sewer manhole northeast of the property contained aged gasoline, oil and lead. In addition, petroleum odors were noted in the stormwater discharge to a tributary of the Milwaukee drain, north of Penn Street.

In February 1993, the impacted soils in the vicinity of the waste oil tank were excavated. Soil sampling indicated that impacted soils were removed (City of Moses Lake, 1993).

In 1993 and 1994, the City contracted Groundwater Technology, Inc. (Groundwater Technology, 1994) to complete a Remedial Investigation/Feasibility Study (RI/FS) to characterize Site conditions and obtain Site information to support a feasibility study of remedial alternatives associated with the petroleum impacted soils and groundwater found during the 1992 decommissioning of the USTs. The specific areas of concern investigated during the RI were operations associated with: former UST storage of gasoline, diesel and waste oil; vehicle parking on the property; and, a stormwater / groundwater collection system that discharges to a tributary of the Milwaukee drain, north of Penn Street. Eighteen soil borings were drilled and 10 groundwater monitoring wells (MW-05 through MW-14) were installed (Figure 2-2). Construction details for the monitoring wells (MW-05 through MW-14) are summarized in Table 2-2. Soils and groundwater analyzed indicated two areas of impacted soil and one plume of impacted groundwater:

- Diesel contaminated soils were encountered beneath the southwest portion of the maintenance shop;
- Gasoline contaminated soils were encountered beneath the northern portion of the maintenance shop and northwest of the maintenance shop; and,
- A 150-200 ft plume of gasoline-impacted groundwater less than 50 feet wide was encountered from the Site of the former gasoline USTs in a northwesterly direction to MW-08 about 90 feet north of the office building on Penn Street (Figure 2-2).

A remediation system comprising soil venting, air sparging system and in-situ bioremediation was recommended to remediate the Site. In summer 1994, the soil and groundwater remediation system recommended by Groundwater Technology (1994) was installed. After four years of intermittent operation and monitoring, it was determined that the contaminants had been lowered to below action levels and in April 1997 the system was shut down (Ecology, 2002).

In June 1995, during excavation of the sweeper pit, petroleum contaminated soil and waste oil filters were encountered. The contaminated soils and filters were removed (Ecology, 2002).

In late 2001, the City purchased the property west of the maintenance facility and east of Block Street. In February 2002, 10 test pits (Figure 2-2), designated as GA-TP-1 through -10, were excavated to support future development of the maintenance facility on the newly purchased land to the west (Golder, 2002). Diesel and heavy oil impacted soils containing levels exceeding the 2,000 ppm MTCA Method A Cleanup level for unrestricted land use were encountered in two test pits (GA-TP-10 and GA-TP-9) located in the center of the Site (See Figure 2-2). Although groundwater was not analyzed, visual observations made in the test pits indicated that groundwater was potentially impacted.

City personnel said they are unaware of any previous environmental investigations associated with the western 2.5-acre portion of the Site.